

CLAIMS

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:

1           1. A system for providing enhanced functionality for  
2 handling each event of at least one event received by a window  
3 object having a plurality of window controls comprising:

4           a plurality of control enhancers, each providing an interface  
5 to a one specific control for said window object; and

6           a list of said control enhancers for determining which of said  
7 plurality of control enhancers to invoke to handle the received  
8 event.

Sub A1 1           2. The system of Claim 1 wherein each of said plurality of  
2 control enhancers comprises at least one data storage handler.

1           3. The system of Claim 1 wherein each of said plurality of  
2 control enhancers comprises at least one data initializer.

1           4. The system of Claim 1 wherein each of said plurality of  
2 control enhancers comprises at least one data finalizer.

1           5. The system of Claim 1 wherein a first one of said window  
2 controls is related to at least one second of said window controls,  
3 said control enhancer for said first window control further

4 comprising at least one pointer to the control enhancer for said  
5 second window control; at least one means for determining if an  
6 action at said first control enhancer affects said second control  
7 enhancer; and means for communicating with said second control  
8 enhancer.

1 6. The system of Claim 1 wherein at least one of said  
2 control enhancers further comprises means for determining limits to  
3 be placed on data related to said control enhancer.

4 7. The system of Claim 4 wherein at least one of said  
5 control enhancers further comprises means for validating data at  
6 said data finalizer.

7 8. The system of Claim 1 wherein at least one of said  
8 control enhancers further comprises means for identifying data  
9 related to the window control of said at least one control  
0 enhancer.

1 9. A system for providing enhanced functionality for  
2 handling each event of at least one event received by a window  
3 object having a plurality of window controls comprising:

4 a plurality of control enhancers, each providing an interface  
5 to a one specific control for said window object, each of said  
6 control enhancers comprising at least one data storage handler, at  
7 least one data initializer; and at least one data finalizer; and

8 a list of said control enhancers for determining which of said  
9 plurality of control enhancers to invoke to handle the received  
10 event.

1 10. The system of Claim 9 wherein a first one of said window  
2 controls is related to at least one second of said window controls,  
3 said control enhancer for said first window control further  
4 comprising at least one pointer to the control enhancer for said  
5 second window control; at least one means for determining if an  
6 action at said first control enhancer affects said second control  
7 enhancer; and means for communicating with said second control  
8 enhancer.

1 11. The system of Claim 9 wherein at least one of said  
2 control enhancers further comprises means for determining limits to  
3 be placed on data related to said control enhancer.

1 12. The system of Claim 9 wherein at least one of said  
2 control enhancers further comprises means for validating data at  
3 said data finalizer.

1 13. The system of Claim 9 wherein at least one of said  
2 control enhancers further comprises means for identifying data  
3 related to the window control of said at least one control  
4 enhancer.

1 14. A method for providing enhanced functionality of window  
2 controls in response to at least one event received at said window,  
3 said window comprising a plurality of control enhancers, comprising  
4 the steps of:

5 receiving an event at said window;

6 locating at least one interested control enhancer for said  
7 event from said plurality of control enhancers;

8 passing said event to said at least one interested control  
9 enhancer; and

10 handling said event at said at least one interested control  
11 enhancer.

12 15. The method of Claim 14 wherein said window comprises a  
13 control enhancer list of events affecting each of said listed  
14 control enhancers and wherein said locating comprises:

15 accessing said list of events;

16 comparing said received event to said list of events; and

17 determining interested control enhancers based on said  
18 comparing.

19 16. The method of Claim 14 wherein said window controls have  
20 relationships and wherein said received event is a display event  
21 further comprising the steps of:

22 determining if said display event affects at least one of said  
23 relationships;

24 evaluating whether at least one rule for said at least one

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relationship is true; and

9 executing at least one action if said at least one rule is  
true.

1 17. A method for providing an enhanced control for event  
2 handling on a window comprising the steps of:  
3 creating a control on said window;  
4 instantiating a control enhancer for said control;  
5 passing a pointer for said control to said control enhancer.

1 18. The method of Claim 17 further comprising the steps of:  
2 determining if special data handling is required; and  
3 instantiating at least one data handler if special handling is  
4 required; and  
5 assigning said data handler to said control enhancer.

1 19. The method of Claim 17 further comprising the steps of:  
2 determining if special initialization is required;  
3 instantiating at least one data initializer if special  
4 initialization is required; and  
5 assigning said at least one data initializer to said control  
6 enhancer.

1 20. The method of Claim 18 further comprising the steps of:  
2 determining if special initialization is required;  
3 instantiating at least one data initializer if special

4 initialization is required; and  
5 assigning said at least one data initializer to said control  
6 enhancer.

1 21. The method of Claim 17 further comprising the steps of:  
2 determining if special data finalization is required;  
3 instantiating at least one data finalizer if special  
4 finalization is required; and  
5 assigning said at least one data finalizer to said control  
6 enhancer.

1 22. The method of Claim 18 further comprising the steps of:  
2 determining if special data finalization is required;  
3 instantiating at least one data finalizer if special  
4 finalization is required; and  
5 assigning said at least one data finalizer to said control  
6 enhancer.

1 23. The method of Claim 19 further comprising the steps of:  
2 determining if special data finalization is required;  
3 instantiating at least one data finalizer if special  
4 finalization is required; and  
5 assigning said at least one data finalizer to said control  
6 enhancer.

1 24. The method of Claim 20 further comprising the steps of:

2 determining if special data finalization is required;  
3 instantiating at least one data finalizer if special  
4 finalization is required; and  
5 assigning said at least one data finalizer to said control  
6 enhancer.

1 25. The method of Claim 17 further comprising the steps of:  
2 determining if said control has at least one relationship with  
3 at least one other control on said window;  
4 instantiating said at least one relationship;  
5 assigning said at least one relationship to said control  
6 enhancer; and  
7 passing a pointer to each of said at least one other control.

1 26. The method of Claim 25 further comprising:  
2 instantiating at least one rule for said at least one  
3 relationship; and  
4 assigning said at least one rule to said at least one  
5 relationship.

1 27. The method of Claim 26 further comprising:  
2 instantiating at least one action for said at least one rule;  
3 and  
4 assigning said at least one action to said at least one rule.